

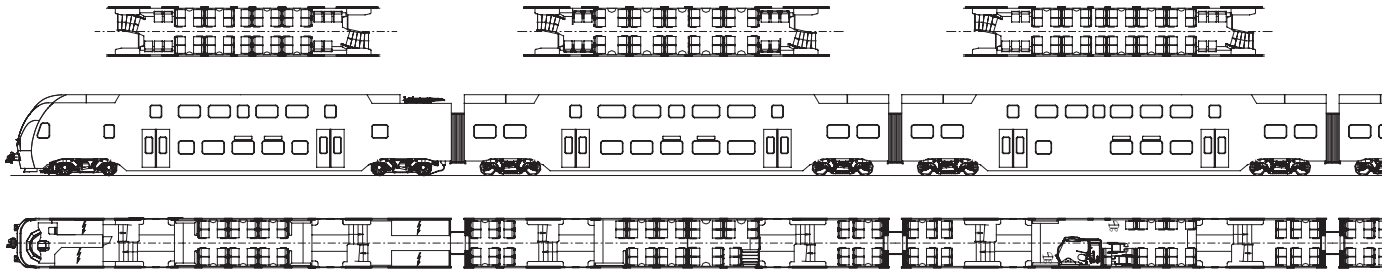


## ***Electric Double-Deck train KISS (6-car train) for the Swiss Federal Railways (SBB), Switzerland***

On June 27<sup>th</sup> 2008, SBB placed the order for the third generation of double-deck trains for the S-Bahn Zurich. Stadler will thereby deliver a total of 50 six-car trains from 2011 onwards. The contract contains options for the supply of further trains. The new double-deck trains from Stadler have a length of 150 metres and have a capacity to transport up to 1373 passengers, with the 535 seats being divided into 120 seats in first class and 415 in second class. The trains each weigh 297 tons and reach a top speed of 160 km/h. Larger trains can be created by combining several traction units. The first trains are due to be commissioned in 2011. They will be used in the Zurich urban network (S-Bahn) and on other SBB routes.

Stadler Altenrhein AG  
Park Altenrhein für Industrie und Gewerbe  
CH-9423 Altenrhein, Switzerland  
Phone +41 (0)71 858 41 41  
Fax +41 (0)71 858 41 42  
stadler.altenrhein@stadlerrail.com

A Company of Stadler Rail Group  
Ernst-Stadler-Strasse 1  
CH-9565 Bussnang, Switzerland  
Phone +41 (0)71 626 21 20  
Fax +41 (0)71 626 21 28  
stadler.rail@stadlerrail.com



## Technical features

- Bright, passenger-friendly interior with customized design
- Spacious boarding areas for an optimal passenger flow
- 12 doors on each side for fast passenger access
- Air conditioning of the passenger areas and the driver's cab with fresh air through the perforated ceiling and area heating system
- Vacuum toilet system, also suitable for the disabled
- Ergonomically designed driver's cab
- Car bodies made from extruded aluminium sections according to EN 15227, Scenario 1, 2 & 4
- Air-suspended bogies
- 4 redundant traction chains with water-cooled IGBT power converters
- Vehicle control system with train bus and diagnostics computer (CAN open bus)
- Multiple-unit control for up to four vehicles



## Vehicle data

Customer	SBB AG, Swiss Federal Railways, Switzerland
Lines operated	SBB network
Gauge	1435 mm
Designation	RABe
Catenary supply voltage	15 kVAC, 16.7 Hz
Axle arrangement	Bo'Bo'+2'2'+2'2'+2'2'+2'2'+Bo'Bo'
Number of vehicles	50
Service start-up	2011–2015
Seating capacity 1.+2. Cl.	120 + 415
Fold up seats	0
Standing capacity (4 pers/m <sup>2</sup> )	838
Floor height	
Low floor entrance	555 mm
Lower-deck	440 mm
Upper-deck	2515 mm
Door width	1400 mm
Standing height	2000 mm
Longitudinal strength	1500 kN
Overall length	150 000 mm
Vehicle width	2800 mm
Vehicle height	4595 mm
Tare weight	297 t
Bogie wheelbase	
Power bogie	2500 mm
Trailer bogie	2500 mm
Powered wheel diameter (new)	920 mm
Trailer wheel diameter (new)	920 mm
Continuous output at wheel	4000 kW
Maximum output at wheel	6000 kW
Starting tractive power (up to 54 km/h)	400 kN
Acceleration at gross weight	1.1 m/s <sup>2</sup>
Maximum speed	160 kph